

Title (en)
Railway wheel alloy

Title (de)
Eisenbahnradlegierung

Title (fr)
Alliage de roue ferroviaire

Publication
EP 1241277 A3 20030319 (EN)

Application
EP 02251512 A 20020305

Priority
US 79808101 A 20010305

Abstract (en)
[origin: EP1241277A2] A steel alloy, particularly adapted for the manufacture of railway wheels is provided. Such alloy comprises essentially, in weight percentage, carbon 0,67 - 0,77, manganese 0,70-0,85, silicon 0,65 - 0,85, phosphorus less than 0,025, sulfur less than 0,025, chromium 0,18 - 0,25, molybdenum 0,08 - 0,12, with the balance essentially iron. Another lower carbon alloy comprises essentially, in weight percentage, carbon 0,16-0,45, manganese 0,90-1,10, silicon 0,50-0,70, phosphorous less than 0,035, sulfur less than 0,035, nickel 1,0-1,5, chromium 0,40-0,60 and molybdenum 0,40-0,60.

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C22C 38/00; B60B 3/06

IPC 8 full level
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B60B 17/0006 (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US);
C22C 38/44 (2013.01 - EP US); **Y02T 10/86** (2013.01 - EP US)

- Citation (search report)
- [A] EP 0469560 A1 19920205 - BURLINGTON NORTHERN RAILROAD [US], et al
 - [A] US 4767475 A 19880830 - FUKUDA KOZO [JP], et al
 - [X] DE 19837311 A1 20000302 - FAG OEM & HANDEL AG [DE]
 - [A] US 4933024 A 19900612 - FUKUDA KOZO [JP], et al
 - [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 281 (C - 200) 15 December 1983 (1983-12-15)
 - [A] ED. J.R. DAVIS: "Carbon and Alloy Steels", March 1996, ASM INTERNATIONAL, USA, XP002210482
 - [A] C.W. WEGST: "STAHL SCHLÜSSEL", 2001, VERLAG STAHL SCHLÜSSEL WEGST GMBH, GERMANY, XP002210483
 - [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 046 (C - 153) 23 February 1983 (1983-02-23)
 - [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 423 (C - 638) 20 September 1989 (1989-09-20)
 - [X] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 10 31 August 1999 (1999-08-31)
 - [X] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12 25 December 1997 (1997-12-25)
 - [X] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 01 31 January 1996 (1996-01-31)
 - [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 10 17 November 2000 (2000-11-17)
 - [A] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 02 31 March 1995 (1995-03-31)
 - [A] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 02 31 March 1995 (1995-03-31)
 - [A] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 03 28 April 1995 (1995-04-28)

Cited by
EP2272686A1; EP1538231A1; WO2013079438A1

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BR 0200655 A 20021210; BR 0200655 B1 20100629; CA 2374394 A1 20020905; CA 2374394 C 20060606; CN 1272459 C 20060830;
CN 1374206 A 20021016; CZ 2002796 A3 20021016; CZ 303508 B6 20121031; DE 60208099 D1 20060126; DE 60208099 T2 20060629;
ES 2254610 T3 20060616; JP 2002256383 A 20020911; JP 3618322 B2 20050209; MX PA02002317 A 20050816; RO 121038 B1 20061130;
US 2002122740 A1 20020905; US 6783610 B2 20040831; ZA 200201812 B 20020926

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CZ 2002796 A 20020304; DE 60208099 T 20020305; ES 02251512 T 20020305; JP 2002057794 A 20020304; MX PA02002317 A 20020301;
RO 200200242 A 20020304; US 79808101 A 20010305; ZA 200201812 A 20020305